IN THE CLAIMS

Please **amend** claims 1, 8, 11-13, and 17-19; **add** new claims 20-41; and **delete** claims 5-7 without prejudice in accordance with the Status of the Claims, *infra*. Additions are underlined and deletions appear as strikethroughs or enclosed between double brackets ([[ ]]).

Claim 1 has been amended to include the recitations of claims 5 and 7, which the Examiner indicates would be allowable, and claims 17-19 have been rewritten in independent form to include the recitation of claim 1, which the Examiner also indicates would be allowable. The amendments to claim 1 and claims 17-19 are made without surrendering any equivalents to which original claim 7 and original claims 17-19 would have been entitled but for the amendment.

Claim 8 and claims 11-13 have been re-written in independent form to include the subject matter of claim 1 and claim 5, which the Examiner also indicates would be allowable. The amendments to claim 8 and claims 11-13 are made without surrendering any equivalents to which original claim 8 and original claims 11-13 would have been entitled but for the amendment.

SUMMARY OF THE CLAIMS

Claim 1 (currently amended). A memory-integrated display element, comprising:

an optical modulation element provided in a pixel;

a memory element, provided in the pixel, which stores binary data, which indicates a value inputted to the optical modulation element, wherein:

said memory element is arranged by connecting at least an input inverter and an[[d]] output inverter to each other in a loop manner, wherein

an output of the input inverter is input into the output inverter, and

wherein said output inverter is a complementary inverter, and

an output of the output inverter which functions as an output end of the memory element, is directly connected to one end of the optical modulation element,

wherein

said complementary inverter includes: a p type transistor connected to a first power line; and an n type transistor connected to a second power line, and an anode of the optical modulation element is connected to an output end of the output inverter, and a cathode of the optical modulation element is connected to the second power line, and

when a ratio of an OFF resistance value of the n type transistor with respect to an ON resistance value of the p type transistor is K,

a ratio of an ON resistance value of the p type transistor with respect to an ON resistance value of the optical modulation element is set to be substantially $(K + 1)^{1/2}/K$.

Claim 2 (original). The memory-integrated display element set forth in claim 1, wherein

said optical modulation element is a current drive type optical modulation element whose luminous intensity varies in accordance with a current quantity.

Claim 3 (original). The memory-integrated display element set forth in claim 1, wherein

said optical modulation element is an Organic Light Emission Diode.

Claim 4 (original). The memory-integrated display element set forth in claim 1, further comprising

electric charge emitting means for emitting electric charge, which has been stored in the optical modulation element while the memory element was applying a voltage to the optical modulation element, after the memory element finishes applying the voltage.

Claims 5-7 (canceled).

Claim 8 (currently amended). A memory-integrated display element, comprising:

an optical modulation element provided in a pixel;

a memory element, provided in the pixel, which stores binary data, which indicates a value inputted to the optical modulation element, wherein:

said memory element is arranged by connecting at least an input inverter and an output inverter to each other in a loop manner, wherein

an output of the input inverter is input into the output inverter, and

wherein said output inverter is a complementary inverter, and

an output of the output inverter which functions as an output end of the memory element, is directly connected to one end of the optical modulation element~~The memory-integrated display element set forth in claim 5~~, wherein

said complementary inverter includes: a p type transistor connected to a first power line; and an n type transistor connected to a second power line, and an anode of the optical modulation element is connected to an output end of the output inverter, and a cathode of the optical modulation element is connected to the second power line, and

when a ratio of an OFF resistance value of the n type transistor with respect to an ON resistance value of the p type transistor is K, and a dispersion quantity of lighting luminance of the optical modulation element is within ± x % with respect to a reference value,

a ratio of an ON resistance value of the p type transistor with respect to an ON resistance value of the optical modulation element is set to be a range from $(K + 1)^{1/2} \cdot (1-x/100)/K$ to $(K + 1)^{1/2} \cdot (1 + x/100)/K$.

Claim 9 (original). The memory-integrated display element set forth in claim 8, wherein

said optical modulation element is a current drive type optical modulation element whose luminous intensity varies in accordance with a current quantity.

Claim 10 (original). The memory-integrated display element set forth in claim 8, wherein

said optical modulation element is an Organic Light Emission Diode.

Claim 11 (currently amended). A memory-integrated display element, comprising:

an optical modulation element provided in a pixel;

a memory element, provided in the pixel, which stores binary data, which indicates a value inputted to the optical modulation element, wherein:

said memory element is arranged by connecting at least an input inverter and an output inverter to each other in a loop manner, wherein

an output of the input inverter is input into the output inverter, and

wherein said output inverter is a complementary inverter, and

an output of the output inverter which functions as an output end of the memory element, is directly connected to one end of the optical modulation element~~The memory-integrated display element set forth in claim 5~~, wherein

said complementary inverter includes: a p type transistor connected to a first power line; and an n type transistor connected to a second power line, and a cathode of the optical modulation element is connected to an output end of the output inverter, and an anode of the optical modulation element is connected to the first power line.

Claim 12 (currently amended). A memory-integrated display element, comprising:

an optical modulation element provided in a pixel;

a memory element, provided in the pixel, which stores binary data, which indicates a value inputted to the optical modulation element, wherein:

said memory element is arranged by connecting at least an input inverter and an output inverter to each other in a loop manner, wherein

an output of the input inverter is input into the output inverter, and

wherein said output inverter is a complementary inverter, and

an output of the output inverter which functions as an output end of the memory element, is directly connected to one end of the optical modulation element~~The memory integrated display element set forth in claim 5~~, wherein

said complementary inverter includes: a p type transistor connected to a first power line; and an n type transistor connected to a second power line, and a cathode of the optical modulation element is connected to an output end of the output inverter, and an anode of the optical modulation element is connected to the first power line, and

when a ratio of an OFF resistance value of the p type transistor with respect to an ON resistance value of the n type transistor is K,

a ratio of an ON resistance value of the n type transistor with respect to an ON resistance value of the optical modulation element is set to be substantially $(K + 1)^{1/2}/K$.

Claim 13 (currently amended). A memory-integrated display element, comprising:

an optical modulation element provided in a pixel;

a memory element, provided in the pixel, which stores binary data, which indicates a value inputted to the optical modulation element, wherein:

said memory element is arranged by connecting at least an input inverter and an output inverter to each other in a loop manner, wherein

an output of the input inverter is input into the output inverter, and

wherein said output inverter is a complementary inverter, and

an output of the output inverter which functions as an output end of the memory element, is directly connected to one end of the optical modulation element~~The memory integrated display element set forth in claim 5~~, wherein

said complementary inverter includes: a p type transistor connected to a first power line; and an n type transistor connected to a second power line, and a cathode of the optical modulation element is connected to an output end of the output inverter, and an anode of the optical modulation element is connected to the first power line, and

when a ratio of an OFF resistance value of the p type transistor with respect to an ON resistance value of the n type transistor is K, and-a dispersion quantity of lighting luminance of the optical modulation element is within ± x % with respect to a reference value,

a ratio of an ON resistance value of the n type transistor with respect to an ON resistance value of the optical modulation element is set to be a range from $(K + 1)^{1/2} \cdot (1-x/100)/K$ to $(K + 1)^{1/2} \cdot (1 + x/100)/K$.

Claim 14 (original). The memory-integrated display element set forth in claim 13, wherein

said optical modulation element is a current drive type optical modulation element whose luminous intensity varies in accordance with a current quantity.

Claim 15 (original). The memory-integrated display element set forth in claim 13, wherein

said optical modulation element is an Organic Light Emission Diode.

Claim 16 (original). The memory-integrated display element set forth in claim 1, wherein

said optical modulation element and said memory element are included in each of plural sub pixels which make up one pixel unit.

Claim 17 (currently amended). A memory-integrated display element, comprising:

an optical modulation element provided in a pixel;

a memory element, provided in the pixel, which stores binary data, which indicates a value inputted to the optical modulation element, wherein:

said memory element is arranged by connecting at least an input inverter and an output inverter to each other in a loop manner, wherein

an output of the input inverter is input into the output inverter, and

wherein said output inverter is a complementary inverter, and

an output of the output inverter which functions as an output end of the memory element, is directly connected to one end of the optical modulation element ~~The memory-integrated display element set forth in claim 1~~, wherein

said memory element includes a power electrode which is used also as either of an anode or a cathode of the optical modulation element.

Claim 18 (currently amended) A memory-integrated display element, comprising:

an optical modulation element provided in a pixel;

a memory element, provided in the pixel, which stores binary data, which indicates a value inputted to the optical modulation element, wherein:

said memory element is arranged by connecting at least an input inverter and an output inverter to each other in a loop manner, wherein

an output of the input inverter is input into the output inverter, and

wherein said output inverter is a complementary inverter, and

an output of the output inverter which functions as an output end of the memory element, is directly connected to one end of the optical modulation element ~~The memory-integrated display element set forth in claim 1~~, wherein

said memory element includes a first power electrode and a second power electrode, and said optical modulation element includes an anode and a cathode, and the first power electrode and the second power electrode are provided separately from the anode and the cathode.

Claim 19 (currently amended). A memory-integrated display element, comprising:

an optical modulation element provided in a pixel;

a memory element, provided in the pixel, which stores binary data, which indicates a value inputted to the optical modulation element, wherein:

said memory element is arranged by connecting at least an input inverter and an output inverter to each other in a loop manner, wherein

an output of the input inverter is input into the output inverter, and

wherein said output inverter is a complementary inverter, and

an output of the output inverter which functions as an output end of the memory element, is directly connected to one end of the optical modulation element~~The memory-integrated display element set forth in claim 1~~, further comprising:

a plurality of data signal lines; and a plurality of select signal lines which cross the data signal lines at right angle, wherein:

said memory element is provided in each of combinations of the data signal lines and the select signal lines, and stores binary data indicated by a data signal line corresponding to the memory element, in a case where a select signal line corresponding to the memory element instructs the memory element to select, and

the memory element is provided adjacent to another memory element, via a reference line, either of the data signal line and the select signal line, so that both memory elements are axially symmetrical with respect to the reference line, and the optical modulation element is provided adjacent to another optical modulation element, via the reference line, so that both optical modulation elements are axially symmetrical with respect to the reference line, and a power line is shared by the both memory elements, or the both optical modulation elements.

Claim 20 (new). The memory-integrated display element set forth in claim 8, further comprising

electric charge emitting means for emitting electric charge, which has been stored in the optical modulation element while the memory element was applying a voltage to the optical modulation element, after the memory element finishes applying the voltage.

Claim 21 (new). The memory-integrated display element set forth in claim 11, further comprising

electric charge emitting means for emitting electric charge, which has been stored in the optical modulation element while the memory element was applying a voltage to the optical modulation element, after the memory element finishes applying the voltage.

Claim 22 (new). The memory-integrated display element set forth in claim 12, further comprising

electric charge emitting means for emitting electric charge, which has been stored in the optical modulation element while the memory element was applying a voltage to the optical modulation element, after the memory element finishes applying the voltage.

Claim 23 (new). The memory-integrated display element set forth in claim 13, further comprising

electric charge emitting means for emitting electric charge, which has been stored in the optical modulation element while the memory element was applying a voltage to the optical modulation element, after the memory element finishes applying the voltage.

Claim 24 (new). The memory-integrated display element set forth in claim 17, further comprising

electric charge emitting means for emitting electric charge, which has been stored in the optical modulation element while the memory element was applying a voltage to the optical modulation element, after the memory element finishes applying the voltage.

Claim 25 (new). The memory-integrated display element set forth in claim 18, further comprising

electric charge emitting means for emitting electric charge, which has been stored in the optical modulation element while the memory element was applying a voltage to the optical modulation element, after the memory element finishes applying the voltage.

Claim 26 (new). The memory-integrated display element set forth in claim 19, further comprising

electric charge emitting means for emitting electric charge, which has been stored in the optical modulation element while the memory element was applying a

voltage to the optical modulation element, after the memory element finishes applying the voltage.

Claim 27 (new). The memory-integrated display element set forth in claim 8, wherein said optical modulation element and said memory element are included in each of plural sub pixels which make up one pixel unit.

Claim 28 (new). The memory-integrated display element set forth in claim 11, wherein said optical modulation element and said memory element are included in each of plural sub pixels which make up one pixel unit.

Claim 29 (new). The memory-integrated display element set forth in claim 12, wherein said optical modulation element and said memory element are included in each of plural sub pixels which make up one pixel unit.

Claim 30 (new). The memory-integrated display element set forth in claim 13, wherein said optical modulation element and said memory element are included in each of plural sub pixels which make up one pixel unit.

Claim 31 (new). The memory-integrated display element set forth in claim 17, wherein said optical modulation element and said memory element are included in each of plural sub pixels which make up one pixel unit.

Claim 32 (new). The memory-integrated display element set forth in claim 18, wherein said optical modulation element and said memory element are included in each of plural sub pixels which make up one pixel unit.

Claim 33 (new). The memory-integrated display element set forth in claim 19, wherein said optical modulation element and said memory element are included in each of plural sub pixels which make up one pixel unit.

Claim 34 (new). The memory-integrated display element set forth in claim 11, wherein

said optical modulation element is a current drive type optical modulation element whose luminous intensity varies in accordance with a current quantity.

Claim 35 (new). The memory-integrated display element set forth in claim 11, wherein

said optical modulation element is an Organic Light Emission Diode.

Claim 36 (new). The memory-integrated display element set forth in claim 17, wherein

said optical modulation element is a current drive type optical modulation element whose luminous intensity varies in accordance with a current quantity.

Claim 37 (new). The memory-integrated display element set forth in claim 17, wherein

said optical modulation element is an Organic Light Emission Diode.

Claim 38 (new). The memory-integrated display element set forth in claim 18, wherein

said optical modulation element is a current drive type optical modulation element whose luminous intensity varies in accordance with a current quantity.

Claim 39 (new). The memory-integrated display element set forth in claim 18, wherein

said optical modulation element is an Organic Light Emission Diode.

Claim 40 (new). The memory-integrated display element set forth in claim 19, wherein

said optical modulation element is a current drive type optical modulation element whose luminous intensity varies in accordance with a current quantity.

Claim 41 (new). The memory-integrated display element set forth in claim 19, wherein

said optical modulation element is an Organic Light Emission Diode.